



## Biosecurity Awareness in Ireland Is the Message Getting Through?

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Biosecurity Workshop  
Concarneau, France  
16<sup>th</sup> May 2019



# Scope

What is biosecurity?

What are we striving for in Ireland?

Biosecurity situation in Ireland

Recent progress



# Biosecurity

Biosecurity covers all activities aimed at managing and PREVENTING the introduction and spread of non-native and invasive species

*Prevention is better than cure and far less environmentally, socially and economically expensive*



# What are we striving for in Ireland?

*Comprehensive national Biosecurity Strategy that can identify and effectively tackle IAS risks to Ireland's environment, economy and to human health*

## **New Zealand is the Gold Standard**

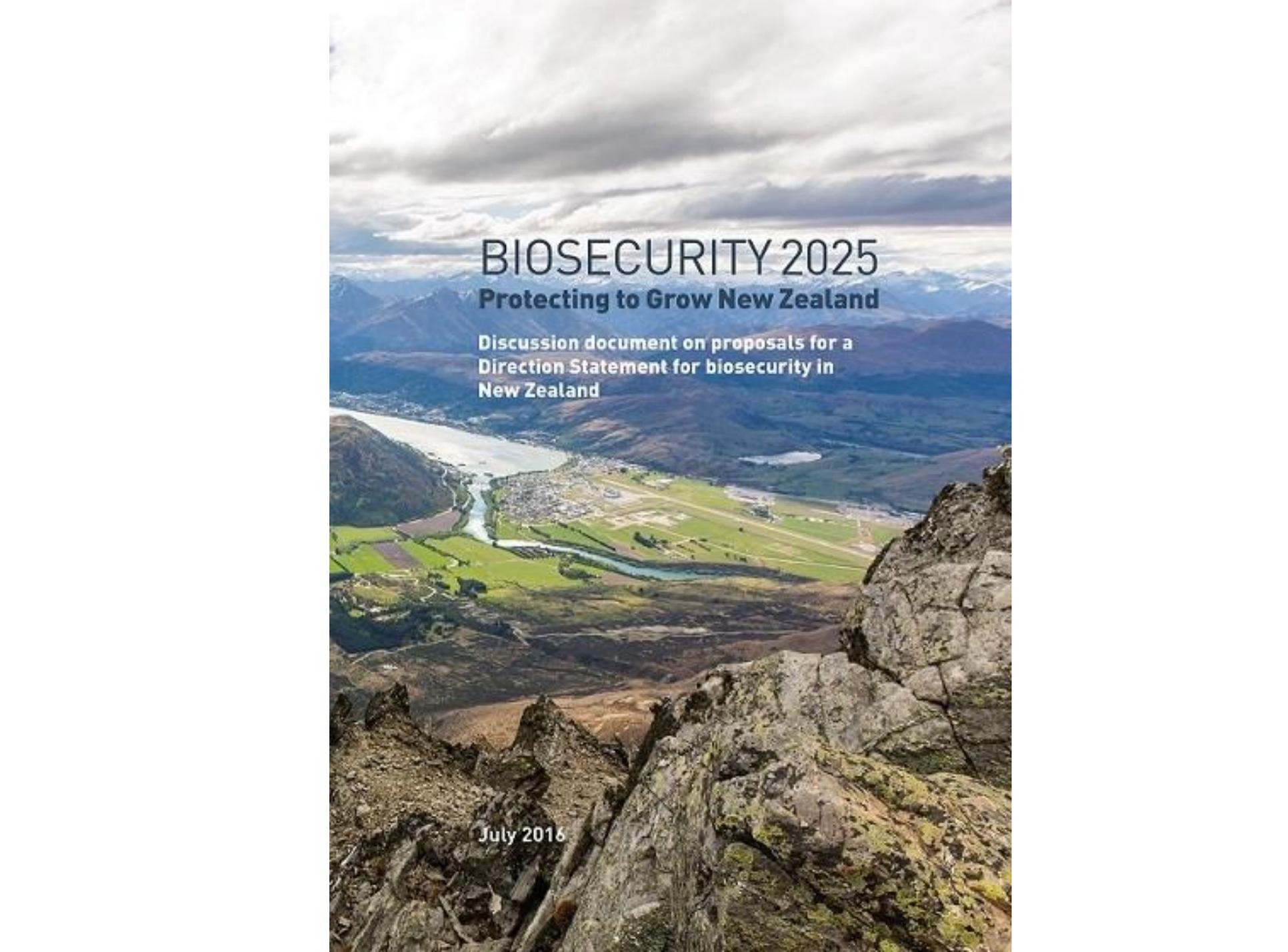
Three-tiered approach:	pre-border	- stop IAS getting in
	border	- stop IAS at point of entry
	post-border	- respond (EDRR) once in

Biosecurity Act (1993) – ensures nationally consistent, centrally coordinated biosecurity management

Strong, effective legislation and enforcement

Research supports biosecurity management and implementation - proactive IAS management is science-driven

Public support biosecurity - to protect farming, environment and public health from IAS



# BIOSECURITY 2025

## Protecting to Grow New Zealand

Discussion document on proposals for a  
Direction Statement for biosecurity in  
New Zealand

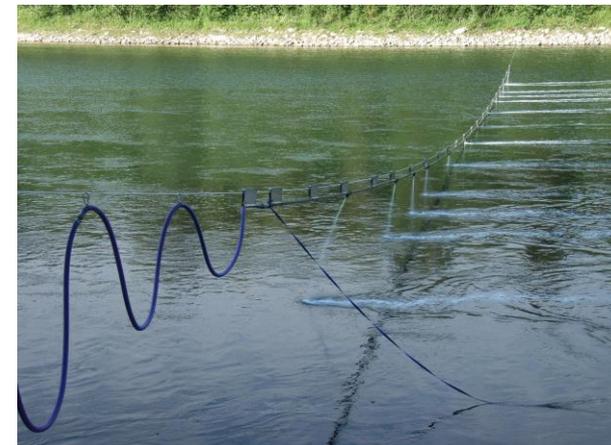
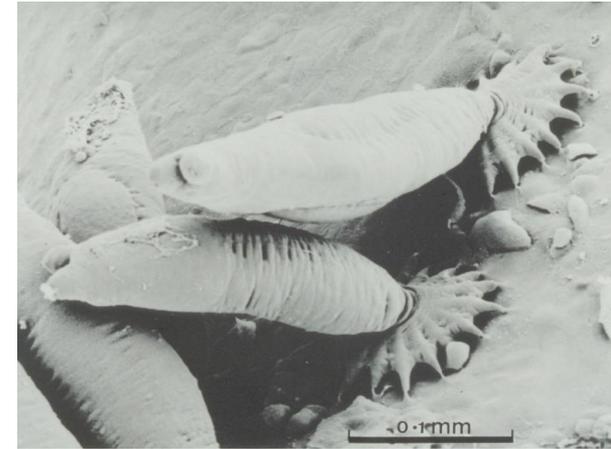
July 2016

# Norway

Wild salmon angling is very big business and any threat will be severely dealt with

Salmon fluke (*Gyrodactylus salaris*) causes catastrophic damage

Control – nuclear option (Rotenone or derris powder)



# Norway, Iceland .....

## Compulsory Disinfection of Angling Equipment

Laws prohibit import of equipment used abroad that is not disinfected

Disinfection should be carried out in the country of embarkation

Certificate of disinfection must accompany angling equipment

Certificate must be on official headed paper, stamped and no older than 3 weeks

Without a certificate, equipment must be disinfected at port of entry at owner's expense or .....



# GB Non-native Species Secretariat

Established in 2006 to meet challenges posed by IAS

‘GB Invasive Non-native Species Strategy’ published in 2008 (updated 2015)  
- to provide strategic framework for co-ordinated action against IAS

Small, permanent staff with monthly access to Minister

Advises government re IAS issues

Stakeholder engagement of primary importance

Supports and develops IAS campaigns (e.g. Be Plant Wise, Check Clean Dry)

Produces IAS ID sheets, risk assessments, action plans

Excellent website [www.nonnativespecies.org](http://www.nonnativespecies.org)

# What has been the Biosecurity Situation regarding IAS in Ireland?

No lead agency or Steering Group, with sole responsibility for IAS

No national Strategy for IAS

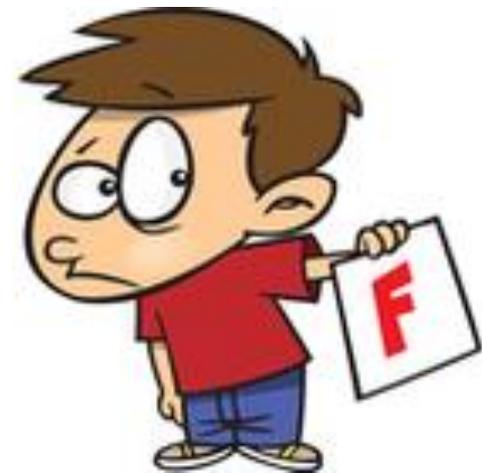
No biosecurity protocols (or even guidelines) for many Government agencies

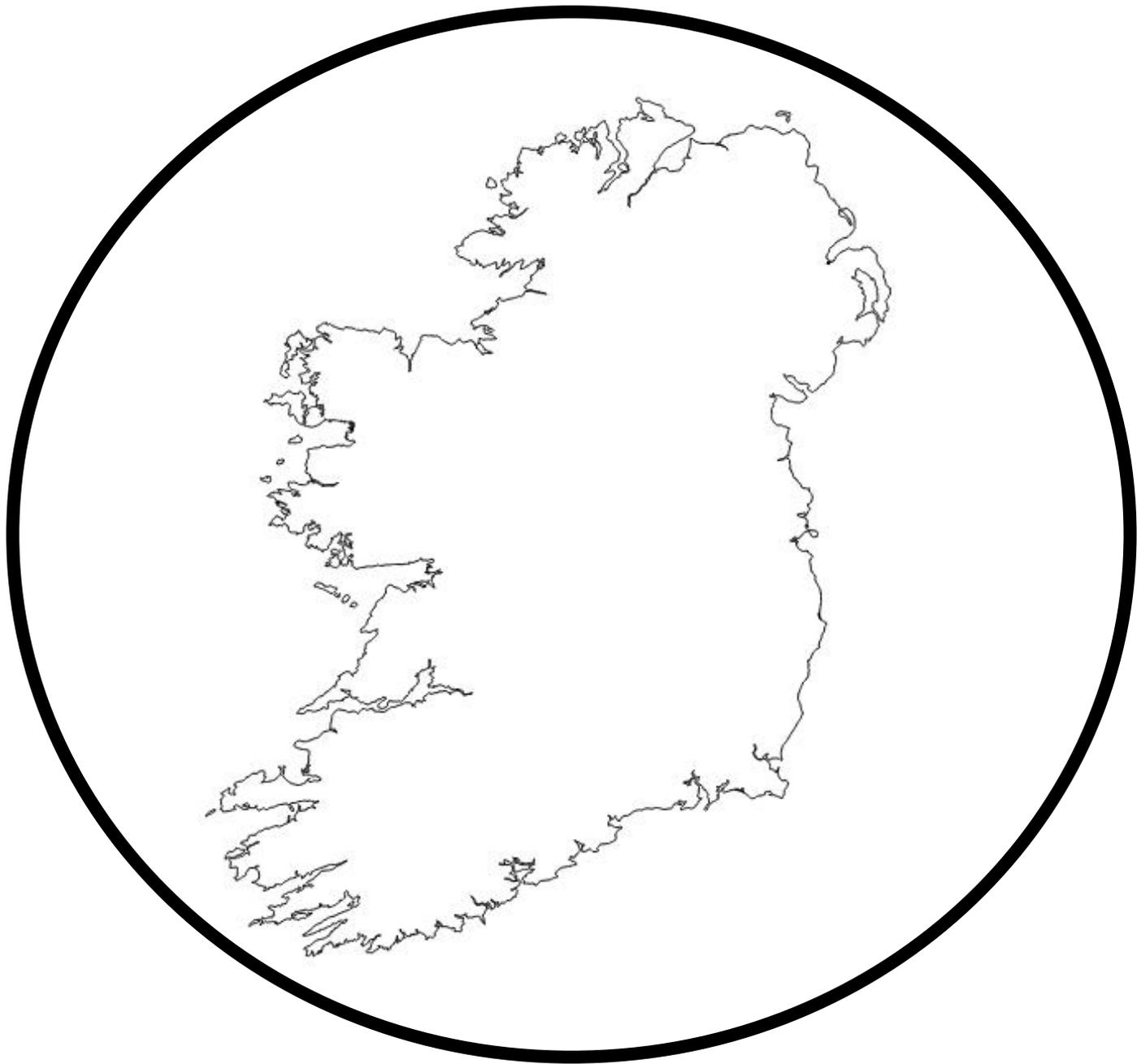
No coordinated campaign(s) to promote IAS awareness

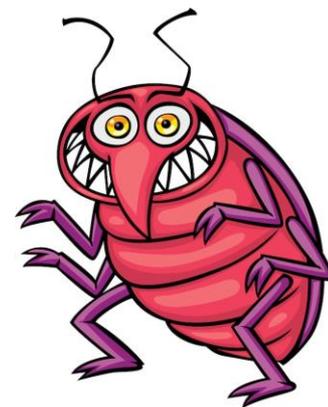
No funding / resource for Customs authorities to target IAS

Irish IAS legislation is not a deterrent

*This is regrettable because, like NZ, Ireland is an island*







# Biosecurity for IAS in Ireland

## Key Drivers

Increased rate of introduction and spread of IAS in last two decades

Recently, risk from pathogens has increased:

Ash dieback (*Hymenoscyphus fraxinus*) - 2012

Crayfish plague (*Aphanomyces astaci*) - (1987) 2015, 2017, 2018

Carp edema virus - 2018

Salmon fluke (*Gyrodactylus salaris*)

Koi Herpes Virus



# Biosecurity Recommendations in Ireland



- Identify the need to
- Check
  - Clean
  - Dry

But highlight the possible / likely need to Disinfect

- to minimise the risk of introducing or spreading pathogens
- to minimise spread of IAS when complete drying is not possible

Virkon Aquatic – broad-spectrum disinfectant, acknowledged to kill many fish pathogens and some IAS



# Biosecurity for IAS in Ireland - Recent Progress

## European Legislation

EU Regulation on “prevention and management of the introduction and spread of Invasive Alien Species” (No. 1143/2014)

Aim: to prevent, minimise and mitigate the adverse impacts of IAS on .....

2 recent IAS incursions have been targeted:

Coypu (*Myocastor coypus*)

Curly waterweed (*Lagarosiphon major*)



.... and emergency legislation dealing with Crayfish plague had been introduced

# Biosecurity for IAS in Ireland - Recent Progress

## Irish Legislation

SI 477: EC (Birds and Natural Habitats) Regulations 2011 (2 of 74 - IAS)

Reg 49: prohibits the introduction and dispersal of listed species

Reg 50: prohibits dealing with (sale, propagation, etc.) of listed species

*.... but Reg 50 not commenced because its not compatible with EU trade regulations*

New legislation being written to revoke SI 477:

- aspects and species included in EU IAS Regulation
- cover EU trade regulations and replace Reg 50
- provide facility to rapidly introduce emergency legislation



To be finalised in 2019

# Biosecurity for IAS in Ireland - Recent Progress

## National Biodiversity Action Plan 2017 - 2021

### Target 4.4            Control harmful IAS and stop introduction and spread

- implement EU IAS Regulations and relevant Irish legislation
- develop and adopt biosecurity plans in relevant state bodies
- develop a Rapid Response Protocol on the island of Ireland
- coordinate and collate IAS surveillance and monitoring data
- enhance measures to eradicate, control or contain IAS
- work with horticulture and pet trades to stop introduction and spread of IAS

# Biosecurity for IAS in Ireland - Recent Progress

## River Basin Management Plan (WFD) 2018 - 2021

### Principal Actions (for DCHG)

- implement EU IAS Regulations
- put in place clear governance arrangements to manage aquatic IAS
- develop management plans for high impact IAS
- develop national guidelines for biosecurity

**Enforcement ????**

# Biosecurity for IAS in Ireland - Recent Progress

## Engagement with Government Minister and Regulatory Authority (NPWS)

Meeting with NPWS in late 2018

'Long-awaited' meeting with Minister (biodiversity ...) in February 2019

Within 2 weeks (small) national IAS budget doubled

Proposed List of Actions (18) for National Biosecurity Strategy submitted

- *emphasis on need for nationally consistent and centrally coordinated management*

To be considered and costed for possible phased entry

Follow-up meeting shortly



# Biosecurity for IAS in Ireland - Recent Progress

## Research

- European projects    e.g. (Life CAISIE)  
Interreg IVA N2K, Interreg IVA CANN  
'Improvement of Understanding and Communication'
- National projects    e.g.    EPA Research – 'prevention, control and eradication of IAS'
- Collaboration:    develop novel, practical biosecurity measures to stop IAS spread  
  
develop practical management solutions to stop spread  
  
develop and trial new / safe disinfection products  
  
improve effective communication / engagement with .....

# Some examples of recent published Research

Barbour J.H., McMenamin, S., Dick, J.T.A., Alexander, M.E. and **Caffrey, J.M.** (2013) **Biosecurity** measures to reduce secondary spread of the invasive freshwater Asian clam, *Corbicula fluminea* (Muller, 1774). *Management of Biological Invasions* 4 (3), 219 – 230.

**Caffrey, J.M.** and Harris, M. (2013) Invasive plant species in aquatic and riparian habitats in urban Dublin. In: *Invasive Alien Species – The Urban Dimension. Case studies on strengthening local action in Europe*. IUCN European Union Representative Office. pp50 – 57.

**Caffrey, J.M.**, Dick, J.T.A., Gallagher, C. and Lucy, F.E. (2016) Aquatic invasive alien species in Europe and proposed management solutions. *The State of World Fisheries and Aquaculture. Contributing to food security and nutrition for all*. FAO, Rome. 142-146.

Coughlan NE, Cuthbert RN, Dickey JWE, Crane K, **Caffrey JM**, Lucy FE, Davis E and Dick JTA (2018) Better **biosecurity**: spread prevention of the invasive Asian clam, *Corbicula fluminea* (Müller, 1774). Under Review

Coughlan NE, Walsh DA, **Caffrey JM**, Davis E, Lucy FE, Cuthbert RN, Dick JTA (2018c). Cold as Ice: a novel eradication and control method for invasive Asian clam, *Corbicula fluminea*, using pelleted dry ice. *Management of Biological Invasions* 9

Cuthbert R.N., Coughlan N.E., Crane K., **Caffrey JM**, Maclsaac H.J., Dick JTA (2018) A dip or a dab: assessing the efficacy of Virasure® **Aquatic disinfectant** to reduce secondary spread of the invasive curly waterweed *Lagarosiphon major*. *Management of Biological Invasions*. In Press.

Cuthbert RN, Crane K, Dick JTA, **Caffrey JM**, Maclsaac HJ, Coughlan NE (2019) Die Hard: impact of **aquatic disinfectants** on the survival and viability of invasive *Elodea nuttallii*. *Aquatic Botany* 154, 11-17

# Biosecurity for IAS in Ireland - Recent Progress

## Targeted Protocol Development

Started with Inland Fisheries Ireland (IFI) pre-2015

Stakeholders e.g. anglers, boaters, scuba divers, paddle sports

Recent requests for dedicated biosecurity protocols and equipment:

Waterways Ireland

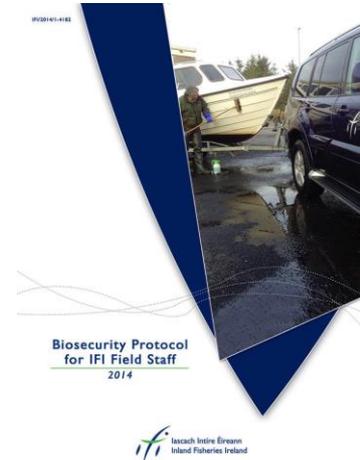
Irish Water

Local Authorities

Rivers Trusts

Community / volunteer groups

*Interest and uptake encouraging!!*



# Biosecurity for IAS in Ireland - Recent Progress

## Awareness promotion

Central to all research projects – major focus on social media

Media – national TV coverage occasional, with immediate high impact but....

Targeted IAS and Biosecurity Training (by INVAS)

- Aim:
- to provide information re IAS, impacts, pathways, legislation and ID
  - stress the need for biosecurity, particularly in light of Crayfish plague
  - introduce biosecurity protocols and demonstrate best biosecurity practice

In last 8 months, ran 26 full and half-day training / workshop sessions for State, semi-state, corporate, community and stakeholder groups

# Biosecurity for IAS in Ireland - Recent Progress

## Awareness promotion

Angling federation has introduced 'no dip - no draw' policy for all competitions



Canoeing Ireland promote cleaning and/or disinfection at all events



# Biosecurity for IAS in Ireland - Recent Progress

## National IAS Control Programmes

TII programme for Japanese Knotweed control on national roads – through Local Authorities

€5 million over four years (2016 – 2020)



# Biosecurity for IAS in Ireland - Recent Progress

## Cleaning/Disinfection Products for Individual, Club or Corporate Use



# Biosecurity in Ireland

*Is the message getting through?*

- European and new national legislation will improve situation – though need enforcement
- Minister and NPWS fully aware and considering ‘List of Actions for National Biosecurity’
- Research, including awareness promotion, ongoing
- Dedicated biosecurity protocols developed for State and semi-state agencies
- Some stakeholder groups have developed biosecurity policy statements

